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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,021	09/25/2003	Eduard K. de Jong	SUN040026	2445
24209 7590 08/13/2007 GUNNISON MCKAY & HODGSON, LLP 1900 GARDEN ROAD SUITE 220 MONTEREY, CA 93940			EXAMINER CERVETTI, DAVID GARCIA	
			ART UNIT 2136	PAPER NUMBER
			MAIL DATE 08/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/673,021	Applicant(s) DE JONG, EDUARD K.	
	Examiner David G. Cervetti	Art Unit 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/7/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments filed May 29, 2007, have been fully considered but they are not persuasive.
2. Claims 1-52 are pending and have been examined.

Response to Amendment

3. The objections to the drawings are withdrawn.
4. The objections to the specification are withdrawn.
5. The objection to claim 25 is withdrawn.
6. The Double Patenting rejections in view of copending Applications No. 10/672,836, 10/672,700, and 10/672,183 are withdrawn.
7. The rejection of claims 14-26 under 35 U.S.C. 101 is withdrawn.
8. Regarding the arguments against the prior art, Examiner respectfully submits that while the elements must be arranged as required by the claim, this is not an ipsissimis verbis test, i.e., identity of terminology is not required. In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Note that, in some circumstances, it is permissible to use multiple references in a 35 U.S.C. 102 rejection. See MPEP § 2129. **Applicant's arguments are not persuasive.**
9. Examiner respectfully submits that the "laundry list" of Kiddy anticipates the claimed limitations of determining the permutation to apply to an instruction counter value, i.e. Kiddy teaches permuting the instructions to provide obfuscation, and maintain a stack-balanced instructions, in other words, where instructions point to and counters

values are, they are permuted to maintain a workable product (col. 5, lines 1-67, claims 1-59). **Applicant's arguments are not persuasive.**

10. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Throughout the arguments it is stated that the art does not teach to the same level of detail without clearly pointing out what is not taught.

11. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

12. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1, 3-7, 9-12, 14, 16-20, 22-25, 27, 29-33, 35-38, 40, 42-46, and 48-51

are rejected under 35 U.S.C. 102(e) as being anticipated by Kiddy (US Patent 6,694,435).

Regarding claims 1, 14, 27, and 40, Kiddy teaches

- receiving an application program that comprises application program instructions and application program data (**col. 5, lines 5-25**);
- determining an application program instruction location permutation to apply to a current instruction counter value (**col. 5, lines 45-67**);
- determining an application program data location permutation to apply to a current data location counter value; receiving said current instruction counter value (**col. 5, lines 45-67**);
- applying said application program instruction location permutation to said current instruction counter value to obtain a first reference to an application program instruction in an instruction stream to execute (**col. 6, lines 1-47**);
- if said application program instruction references application program data, applying said application program data location permutation to data referenced by said application program instruction to obtain a second reference to data to access, said data to access interleaved with application program instructions in said instruction stream (**col. 6, lines 65-67, col. 7, lines 1-30**); and

- executing said application program instruction (**col. 7, lines 13-30**).

Regarding claims 7, 20, 33, and 46, Kiddy teaches

- reading a first application program comprising application program instructions and application program data (**col. 5, lines 5-25**);
- determining an application program instruction location permutation that transforms said first application program into an obfuscated application program, said obfuscated application program having at least one application program instruction stored at a memory location that is based at least in part on a permutation of the memory location where the corresponding application program instruction is stored in said first application program (**col. 5, lines 45-67**);
- determining a first instruction location of said first application program (**col. 5, lines 45-67**);
- determining an application program data location permutation that transforms said first application program into an obfuscated application program, said obfuscated application program having at least one application program datum stored at a memory location that is based at least in part on a permutation of the memory location where the corresponding application program datum is stored in said first application program (**col. 5, lines 45-67, col. 6, lines 1-47**);
- determining a first data location of said first application program (**col. 5, lines 45-67**);

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- applying said application program instruction location permutation and said application program data location permutation to said first application program to create an obfuscated application program comprising an instruction stream having application program data interspersed with application program instructions (**col. 6, lines 1-47**); and
- sending said obfuscated application program (**col. 7, lines 13-30**).

Regarding claims 3, 9, 16, 22, 29, 35, 42, and 48, Kiddy teaches wherein at least some of said data to access is formatted to appear like one or more valid instructions (**col. 5, lines 35-67**).

Regarding claims 4, 10, 17, 23, 30, 36, 43, and 49, Kiddy teaches wherein at least some of said data to access comprises randomized data (**col. 5, lines 35-67**).

Regarding claims 5, 11, 18, 24, 31, 37, 44, and 50, Kiddy teaches wherein said randomized data is formatted to appear like one or more valid instructions (**col. 5, lines 35-67**).

Regarding claims 6, 19, 32, and 45, Kiddy teaches determining whether there is another application program instruction to be executed; advancing said current instruction counter if there is another application program instruction to be executed; and repeating said receiving, said applying and said executing after said advancing (**col. 5, lines 45-67**).

Regarding claims 12, 25, 38, and 51, Kiddy teaches receiving an application program request from a user device, said determining occurring in response to said receiving (**col. 6, lines 15-65**).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claims 2, 8, 13, 15, 21, 26, 28, 34, 39, 41, 47, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiddy, and further in view of Drake (US Patent 6,006,328).**

Regarding claims 2, 8, 15, 21, 28, 34, 41, and 47, Kiddy does not expressly disclose using encryption. However, Drake teaches wherein said application program data comprises at least one cryptographic key for use in decrypting data (**col. 4, lines 40-67, col. 5, lines 1-35**). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use encryption with the system of Kiddy. One of ordinary skill in the art would have been motivated to perform such a modification to provide further security to the application (Drake, summary).

Regarding claims 13, 26, 39, and 52, Kiddy does not expressly disclose using encryption. However, Drake teaches after said applying said application program instruction location permutation and said application program data location permutation, applying a cryptographic process to said obfuscated application program together with a

cryptographic key to create an encrypted obfuscated application program; and said sending comprises sending said encrypted obfuscated application program (**fig. 6, col. 4, lines 40-67, col. 5, lines 1-35, col. 16, lines 1-67**). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use encryption with the system of Kiddy. One of ordinary skill in the art would have been motivated to perform such a modification to provide further security to the application (Drake, summary).

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David G. Cervetti whose telephone number is (571)272-5861. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday.


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19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on (571)272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ David García Cervetti/

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